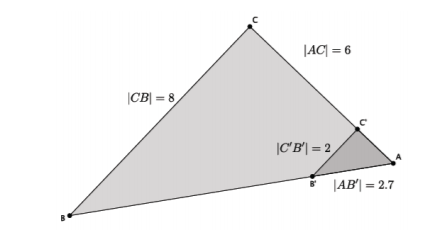
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

CW 57: More Similarity

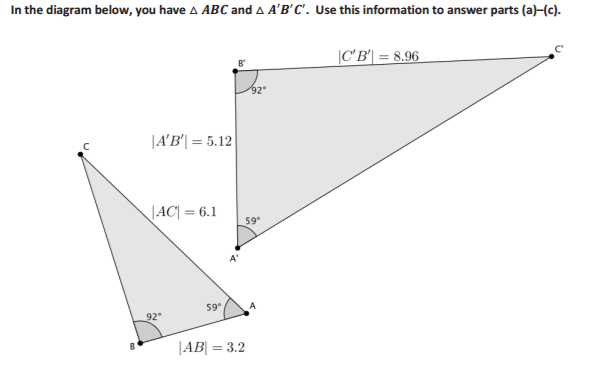
**Honors Geometry**

|  |  |
| --- | --- |
| 1) Is either Δ*LMN* o*r* Δ*RST* similar to Δ*ABC*? | 2) Determine whether the two triangles are similar. If they are similar, explain how you know and find the scale factor of Δ*A* to Δ*B.* |
| 3) Show that triangles PTQ and PRS are similar and *explain* yourreasoning using complete sentences. | 4) Show that the triangles are similar and write a similarity statement. *Explain* yourreasoning. |



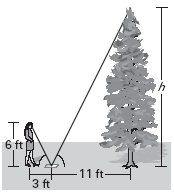
4. Based on the information provided in the figure, are the two triangles similar?

1. Assume the line containing 𝑩𝑪̅̅̅̅ is parallel to the line containing 𝑩′𝑪’. With this information, can you say that △ 𝑨𝑩𝑪 ~ △ 𝑨𝑩 ′𝑪 ′? Explain.
2. Given that △ 𝑨𝑩𝑪~ △ 𝑨𝑩 ′𝑪 ′, determine the length of side 𝑨𝑪′.
3. Given that △ , determine the length of side 𝑨**B.**

5a. Based on the information provided is ?

5b. Given that the two triangles are similar, determine the length of .

5c. Given that the two triangles are similar, determine the length of .

6. In order to estimate the height *h* of a tall pine tree, a student places a mirror on the ground and stands where she can see the top of the tree, as shown. The student is 6 feet tall and stands 3 feet from the mirror which is 11 feet from the base of the tree.

a. What is the height *h* (in feet) of the pine tree?

b. Another student also wants to see the top of the tree. The other student is 5.5 feet tall. If the mirror is to remain 3 feet from the student's feet, how far from the base of the tree should the mirror be placed?

